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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,769	06/11/1999	WAYNE E. BRETL	7081	9810
28574	7590	06/16/2005	EXAMINER	
ZENITH ELECTRONICS CORPORATION 2000 MILLBROOK DRIVE LINCOLNSHIRE, IL 60069			RAO, ANAND SHASHIKANT	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/330,769

Applicant(s)

BRETL ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 16, 17, 28, 29, 32, 37, 42, 46, 47, 56, 57, 59-62, 64, 70, 74, 75 and 81-88 is/are rejected.
- 7) ☒ Claim(s) 18, 19, 30, 31, 39, 48, 58, 66 and 76 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2-10,12-15,20-27,33-36,38,40,41,43-45,47,49-55,63-69,71-73 and 77-80.

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## DETAILED ACTION

### *Response to Amendment*

1. Applicant's arguments with respect to claims 1, 11, 16-17, 28-29, 32, 37, 42, 46-47, and 56-57 59-62, 64, 70, 74-75, 81-88 as filed in 2/10/05 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 11, 32, 37, 42, and 88 are rejected under 35 U.S.C. 102(e) as being anticipated by Vancelette et al., (hereinafter referred to as "Vancelette").

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2) comprising: an on screen display turn on device arranged to provide an output in response to an screen display instruction (Vancelette: column 9, lines 40-45); and an MPEG encoder arranged to

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receive dynamic video frames and process the dynamic video frames to encode frames with an on-screen display in response to the on-screen display instruction (Vancelette: column 6, lines 1-25; column 7, lines 40-67), as in claim 1.

Regarding claim 11, Vancelette discloses that the on screen display is overlaid on video (Vancelette: column 10, lines 30-40), as specified.

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2), comprising: MPEG encoder arranged to encode frames with the on screen display device in response to the output of the on screen display turn on device (Vancelette: column 9, lines 40-45); and a multiplexer arranged to replace the original frames with the encoded frames for supply to a digital television receiver (Vancelette: figure 2, element 230), as in claim 32.

Regarding claim 37, Vancelette discloses that the encoded frames have a time base which is slaved to the original frames (Vancelette: column 8, lines 30-60), as in the claim.

Regarding claim 42, Vancelette discloses that the on screen display is overlaid on video (Vancelette: column 10, lines 30-40), as specified.

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2), comprising: a demultiplexer arranged to demultiplex frames of a selected video program from frames of a non-selected program in a transport stream (Vancelette: column 12, lines 5-35); an MPEG encoder arranged to receive the frames of the selected program and to process the frames of the selected program so as to encode frames with an on screen display (Vancelette: column 9, lines 40-45); and a multiplexer arranged to multiplex the encoded frames with the frames of the non-selected video program in the transport stream (Vancelette: figure 2, element 230), as in claim 88.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16, 17, 28, 29, 46, 47, 56, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vancelette.

Vancelette discloses a majority of the features of claims 16-17, 28-29, 46-47, and 56-57, as has been discussed above regarding claims 1, 32, and 88. However, Vancelette fails to explicitly disclose that the coder is arranged to encode I frames as in claims 16, 28, 46, and 56; and encode subsequent P frames based on the encoded I frames, as in claims 17, 29, 47, and 57. However, Vancelette does disclose that the coder and the cable headend does execute MPEG-2 compression, and one of ordinary skill in the art based on that knowledge knows that the sequence of frame compression in MPEG is an I frame followed by a prediction dependent P and B frames, said compression being implemented in order efficiently compress HDTV compatible signals (Vancelette: column 1, lines 40-67; column 2, lines 1-63). Accordingly, given this teaching it would have obvious for of ordinary skill in the art to have the MPEG encoder of Vancelette be arranged to encode I frames, and I frames followed by P frames based on the I frames, in order to have the system be able to compress HDTV signals by conserving bandwidth. The Vancelette encoder now modified to implement MPEG encoding of I and P frames has all of the features of claims 16-17, 28-29, 46-47, and 56-57.

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6. Claims 59-62, 64, 70, 81-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vancelette in view of Naimpally et al., (hereinafter referred to as "Naimpally").

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2), comprising: MPEG encoder arranged to encode frames with the on screen display device in response to the output of the on screen display turn on device (Vancelette: column 9, lines 40-45); and a multiplexer arranged to replace the original frames with the encoded frames for supply to a digital television receiver (Vancelette: figure 2, element 230), as in claim 59. However, Vancelette fails to disclose that the multiplexer is arranged to add make-up packets such that each encoded frame has as many transport packets as the original frames, as in the claim. Naimpally discloses transport stream processing method including the addition of make-up packets (Naimpally: column 4, lines 35-40) for transmission of transport packets (Naimpally: column 4, lines 15-27) of video data (Naimpally: column 4, lines 41-47) that has been encoded according to MPEG (Naimpally: column 1, lines 45-68; column 2, lines 1-19) in order to efficiently process encoded video data at a desired transmission rate (Naimpally: column 2, lines 24-65). Accordingly, it would have been obvious for one of ordinary skill in the art to incorporate the Naimpally addition of make-up packets into the transport stream into Vancelette on screen display coder in order efficiently process encoded video data at a desired transmission rate. The Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has all of the features of claim 59.

Regarding claim 60, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, further discloses that the packets are null packets (Naimpally: column 5, lines 1-5), as in the claim.

Regarding claim 61, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has that the make up packets are program map table packets (Naimpally: column 8, lines 55-65), as in the claim.

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2), comprising: a buffer arranged to receive and buffer an MPEG transport data stream containing frames of a selected and frames of a non-selected program (Vancelette: column 7, lines 25-67); MPEG encoder arranged to encode frames with the on screen display device in response to the output of the on screen display turn on device (Vancelette: column 9, lines 40-45); and a multiplexer arranged to replace the original frames with the encoded frames for supply to a digital television receiver (Vancelette: figure 2, element 230), as in claims 62 and 81. However, Vancelette fails to disclose that the multiplexer is arranged to add make-up packets such that each encoded frame has as many transport packets as the original frames, as in the claim. Naimpally discloses transport stream processing method including the addition of make-up packets (Naimpally: column 4, lines 35-40) for transmission of transport packets (Naimpally: column 4, lines 15-27) of video data (Naimpally: column 4, lines 41-47) that has been encoded according to MPEG (Naimpally: column 1, lines 45-68; column 2, lines 1-19) in order to efficiently process encoded video data at a desired transmission rate (Naimpally: column 2, lines 24-65). Accordingly, it would have been obvious for one of ordinary skill in the art to incorporate the Naimpally addition of make-up packets into the transport stream into Vancelette on screen display coder in order efficiently process encoded video data at a desired transmission rate. The Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has all of the features of claims 62 and 81.



Regarding claim 64, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has that the encoded frames have a time base which is slaved to the original frames (Vancelette: column 8, lines 30-60), as in the claim.

Regarding claim 70, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has that the on screen display is overlaid on video (Vancelette: column 10, lines 30-40), as specified.

Regarding claim 82, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, further discloses that the packets are null packets (Naimpally: column 5, lines 1-5), as in the claim.

Regarding claim 83, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has that the make up packets are program map table packets (Naimpally: column 8, lines 55-65), as in the claim.

Regarding claim 84, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has a delay buffer arranged to delay the MPEG transport stream by an amount of time commensurate with an amount of time required by the MPEG encoder to encode the framers of the selected program with the on screen display (Vancelette: column 12, lines 1-35), as in the claim.

Vancelette discloses an MPEG on screen display coder (Vancelette: figure 2), comprising: MPEG encoder arranged to encode frames with the on screen display device in response to the output of the on screen display turn on device (Vancelette: column 9, lines 40-45); and a multiplexer arranged to replace the original frames with the encoded frames for supply to a digital television receiver (Vancelette: figure 2, element 230), as in claim 85. However,

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Vancelette fails to disclose that the multiplexer is arranged to add make-up packets such that each encoded frame has as many transport packets as the original frames, as in the claim.

Naimpally discloses transport stream processing method including the addition of make-up packets (Naimpally: column 4, lines 35-40) for transmission of transport packets (Naimpally: column 4, lines 15-27) of video data (Naimpally: column 4, lines 41-47) that has been encoded according to MPEG (Naimpally: column 1, lines 45-68; column 2, lines 1-19) in order to efficiently process encoded video data at a desired transmission rate (Naimpally: column 2, lines 24-65). Accordingly, it would have been obvious for one of ordinary skill in the art to incorporate the Naimpally addition of make-up packets into the transport stream into Vancelette on screen display coder in order efficiently process encoded video data at a desired transmission rate. The Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has all of the features of claim 85.

Regarding claim 86, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, further discloses that the packets are null packets (Naimpally: column 5, lines 1-5), as in the claim.

Regarding claim 87, the Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, has that the make up packets are program map table packets (Naimpally: column 8, lines 55-65), as in the claim.

7. Claims 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vancelette in view of Naimpally et al., (hereinafter referred to as "Naimpally").

The Vancelette on screen display coder, now incorporating Naimpally's addition of make-up packets, discloses a majority of the features of claims 74-75 as has been discussed

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above regarding claims. However, the Vancelette-Naimpally combination fails to explicitly disclose that the coder is arranged to encode I frames as in claim 74 and encode subsequent P frames based on the encoded I frames, as in claim 75. However, Vancelette does disclose that the coder and the cable headend does execute MPEG-2 compression, and one of ordinary skill in the art based on that knowledge knows that the sequence of frame compression in MPEG is an I frame followed by a prediction dependent P and B frames, said compression being implemented in order efficiently compress HDTV compatible signals (Vancelette: column 1, lines 40-67; column 2, lines 1-63). Accordingly, given this teaching it would have obvious for of ordinary skill in the art to have the MPEG encoder of the Vancelette-Naimpally combination be arranged to encode I frames, and I frames followed by P frames based on the I frames, in order to have the system be able to compress HDTV signals by conserving bandwidth. The Vancelette-Naimpally combination now modified to implement MPEG encoding of I and P frames has all of the features of claims 74-75.

***Allowable Subject Matter***

8. Claims 18-19, 30-31, 39, 48, 58, 66, and 76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These dependent claims all recite the step for "...supplying first and second I frame markers..." which are not anticipated nor obvious over the art of record. Accordingly, these claims are amended as indicated above, and rejected claims 1, 11, 16-17, 28-29, 32, 37, 42, 46-

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47, 56-57 59-62, 64, 70, 74-75, and 81-83 are canceled, the application would be placed in a condition for allowance.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-6606 for regular communications and (703)-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-4700.

asr  
June 10, 2005

Andy S. Rao  
Primary Examiner  
Art Unit 2613

**ANDY RAO**  
**PRIMARY EXAMINER**

